For MicroStation V8 Projects

Date: May 2010

To: All Roadway Design Personnel

From: Jim Knott

Subject: CADD Coordination Policy

The following is the revised MicroStation V8 CADD Coordination Policy dated May 25, 2010. This policy is endorsed by the Roadway Design's Division Quality Council and is administered by the CADD Coordination Group. The CADD Coordination Policy is a companion document to the Design Process Outline and is to be used by all Roadway Design personnel.

This policy is part of the Roadway Design Manual. Future revisions to the policy will be announced via E-mail and will be distributed with the Design Manual updates. An Adobe Acrobat Reader version of this policy will be located in the Falcon DMS \ Training Environment \ MicroStation \ CADD Policy V8.pdf.

PURPOSE:

The MicroStation V8 CADD Coordination Policy was created by the CADD Coordination Committee using input from CADD users. It's purpose is to promote better communication, save time, and increase efficiency for everyone involved. To ensure success, the CADD Coordination Committee will monitor, review and revise the CADD Coordination Policy. The Section Heads and Unit Heads will be involved with the implementation and enforcement.

POLICY:

1. Follow the Design Process Outline (DPO).
2. The Unit Head or Designer is to schedule the Preliminary Setup Meeting with the Plan Development Unit. The information from this meeting will be stored in the Plan Development Process Outline which will be located on the Falcon server under Roadway\Plans\Drafting Transmittals.
3. Follow the standards detailed in the CADD Coordination Policy when working in CADD files.
4. The most current version of all CADD files should be backed up to the Falcon server. Roadway Design sheet files (culvert cross sections, roadway cross sections, earthwork sheets, etc.) that will be part of the letting plans, should be backed up to Falcon under ... \roadway\plans\ by activity 5700.
5. Designers and Technicians will follow all standards when setting up sheet files.
6. Use GEOPAK "D & C Manager" and Design pull-down menus, for design features in CADD files.
7. The level name documentation is located in the Falcon DMS \ Training Environment \ MicroStation \ Level Names January 2010.pdf.

CADD Coordination Policy

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*The cover sheet and sheets 1, 2 and 5 were revised.
The Design Process Flow Chart has been deleted.

FILE NAMING CONVENTIONS

March 2008

X X X X X 0 _ _ .dgn

UNIT BASE FILE

FIRST 5 CHARACTERS ARE PROJECT CONTROL NUMBER.
THE 6th CHARACTER WILL BE ZERO (0) OR THE ALPHA CHARACTER IN THE CONTROL NUMBER.

1. UNIT DESIGNATION (7th Character)

1 2 3 4 5 0 _ _. dgn

- a_____EXPRESSWAYS UNIT "A"
- b_____DISTRICT 6
- c_____CONSULTANT UNIT
- d_____PLAN DEVELOPMENT UNIT
- e_____EXPRESSWAYS UNIT "B"
- i_____INTERSTATE UNIT
- l_____LIGHTING UNIT
- m_____PROJECT DEVELOPMENT / LANDSCAPE UNIT
- n_____DISTRICT 3
- o_____RESURFACING UNIT
- p_____PHOTOGRAMMETRY UNIT
- r_____RIGHT-OF-WAY DESIGN
- s_____SURVEY UNIT
- u_____URBAN UNIT
- w_____WETLANDS
- z_____RAIL AND PUBLIC TRANSPORTATION

2. BASE FILE NAME

1 2 3 4 5 0 x a ?. dgn_____Overall Project (a = Design Alignment File)
1 2 3 4 5 0 x c u l x s. dgn_____Overall Project (Drainage Culvert Cross Sections)
1 2 3 4 5 0 x c. dgn_____Overall Project (c = Contours)
1 2 3 4 5 0 x d. dgn_____Overall Project (d = DTM File)
1 2 3 4 5 0 x f ?. dgn**_____Overall Project (f = Design Feature File)
1 2 3 4 5 0 x p. dgn_____Overall Project (p = Planimetrics)
1 2 3 4 5 0 x x s (chain name). dgn____Overall Project (Mainline / Other Roadway Cross Sections)
1 2 3 4 5 0 x n ?. dgn_____Overall Project (n = Notes File)
1 2 3 4 5 0 x z. dgn_____Overall Project (z = Phasing File)
1 2 3 4 5 0 x p a t. dgn_____Overall Project (Pattern shapes)
1 2 3 4 5 0 x p r o. dgn_____Overall Project - Optional Profile File (Profile may be drawn in the alignment file)

** File to be named by Designer, name not limited to 5 characters.
? = Multiple files may be necessary.

Examples:

Example: 1 2 3 4 5 0 i a 1. dgn (Interstate, Alignment file #1)
Example: 1 2 3 4 5 0 e n 1. dgn (Expressway, Unit B, Notes file #1)
Example: 1 2 3 4 5 0 a n c. dgn (Expressway, Unit A, Notes file for Construction set)
Example: 1 2 3 4 5 0 o f r e v. dgn (Resurfacing, Feature File Revision)
Example: 1 2 3 4 5 0 e f l o c. dgn (Expressway, Unit B, Feature File Limits of Construction)
Example: 1 2 3 4 5 0 a f e c. dgn (Expressway, Unit A, Feature File Erosion Control)

3a. TYPE OF SHEET FILE (8th Character)

1 2 3 4 5 0 d _ _ . dgn

a_____AERIALS (includes Wetland Delineation)
c_____CONSTRUCTION (includes Resurfacing Projects)
d_____DRAINAGE
e_____GRADES
f_____FENCE
g_____GEOMETRICS or GEOMETRICS and GRADES
h_____ALIGNMENT ORIENTATION (Alignment Info., Ties and Bench Marks)
j_____JOINTS
k_____SUMMARY of SOILS and MATERIALS SURVEY INFORMATION
l_____LIGHTING
m_____MISCELLANEOUS (Location Maps and Exhibits)
n_____GENERAL INFORMATION
p_____PLAN AND PROFILE (includes Full Profile)
r_____ REMOVALS
s_____SPECIAL PLAN (Guardrail, etc.)
t_____TYPICALS (includes Joint Repair)
w_____LANDSCAPING
x_____EROSION CONTROL
z_____PHASING

Examples:

Number files 1-999 (One border sheet per file)
Example: 1 2 3 4 5 0 d p 0 5. dgn (Plan and Profile sheet file #5)
Example: 1 2 3 4 5 0 d p 1 1 6. dgn (Plan and Profile sheet file #116)

3b. OTHER SHEET FILES

1 2 3 4 5 0 x e w (chain name) s h t 0 1. dgn* _____EARTHWORK QUANTITIES (Mainline Earthwork Sheet)
1 2 3 4 5 0 x e w (chain name) s h t 0 2. dgn* _____EARTHWORK QUANTITIES (Other Alignment Earthwork Sheet)
1 2 3 4 5 0 x c u l x s s h t 0 1. dgn*_____DRAINAGE XS SHEETS (Mainline Cross Section Sheet)
1 2 3 4 5 0 x c u l x s s h t 0 2. dgn*_____DRAINAGE XS SHEETS (Other Alignment Cross Section Sheet)
1 2 3 4 5 0 x x s (chain name) s h t 0 1. dgn*_____ROADWAY XS SHEETS (Mainline Cross Section Sheet)
1 2 3 4 5 0 x x s (chain name) s h t 0 2. dgn*_____ROADWAY XS SHEETS (Other Alignment Cross Section Sheet)

THESE SHEETS HAVE MULTIPLE CHARACTERS DESCRIBING **TYPE OF SHEET** and **CHAIN NAME.**
NUMBERING ORDER IS FOR IPLOT ORGANIZER PLOTTING.
IN MOST CASES THESE FILES WILL HAVE MULTIPLE BORDER SHEETS PER FILE.

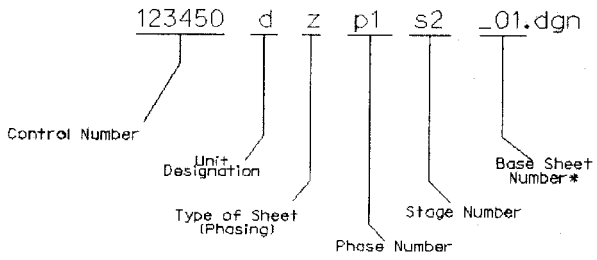
* The number at the end of the file name corresponds to the order in which the Cross Section or Earthwork sheets are plotted. The Roadway Design Manual, Chapter 11- Highway Plans Assembly: Identifies the Plan Sheet Organization used in the Contract Plans.

3c. PHASING SHEET FILES

File Naming For Phased Lighting, Phased Construction, Phased Removals and Phased Cross Sections

File Naming For Phased Lighting,
Phased Construction, Phased Removals
and Phased Cross Sections.

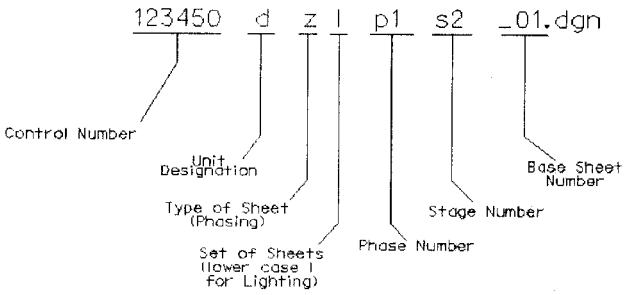
General Phasing sheets should be named as follows:



* The Base Sheet number comes from the Base set of plans use to make the diferent sets of sheets. (construction, removals, erosion control, drainage etc.)

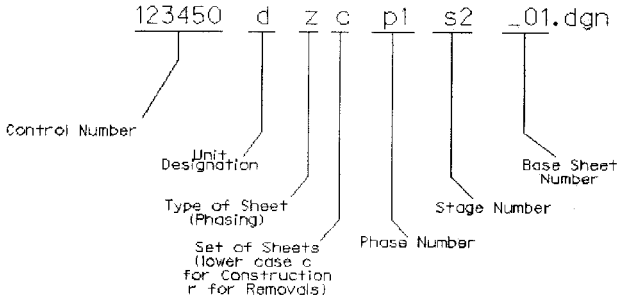
Phasing sheets for Lighting should be named as follows:

123450dzlp1s2_01.dgn



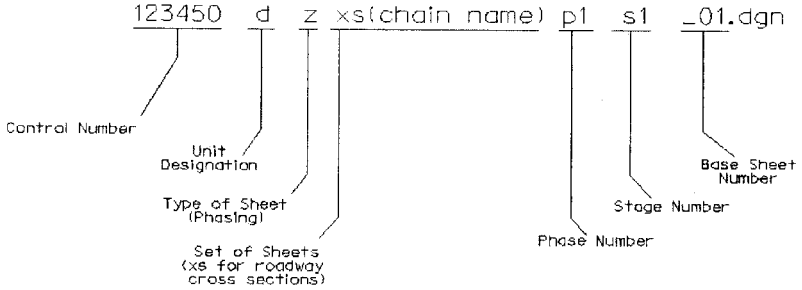
Phasing sheets for Construction or Removals should be named as follows:

123450dzcp1s2_01.dgn



Phasing sheets for Roadway Cross Section Sheets should be named as follows:

123450dzxschainnamep1s1_01.dgn



4. REQUIRED REFERENCE FILE LOGICAL NAMES

Alignment files must use a logical name that begins with "a". i.e. "a1".
Notes files must use a logical name that begins with "n". i.e. "n1".
Plan border sheets must use a logical name that begins with "s". i.e. "s1".
Cross Section borders must use a logical name that has the word "border" in it.
Planimetrics files must use a logical name that begins with "t". i.e. "t1". (plots gray scale)

Note: For automatic scaling at plot time:
Planimetrics files may have logical names of "50t", "40t" or "20t".
Feature files may logical names of "50f" or "20f".

5. REVISION – ADDED SHEET

When adding a sheet for a revision, the file name shall end with an "a".
Example: 1 2 3 4 5 0 d p 0 5 a. dgn (Plan and Profile, added sheet file #5a)

6. AS BUILT FILE NAMES

As Built file names shall start with the letter "a".
Example: a 1 2 3 4 5 0 d p 0 5. dgn (As Built, Plan and Profile sheet file #5)

7. AERIAL FILE NAMES With Year

123450po_08.tif (photogrammetry digital ortho file plus yr)
123450po_08.tfw (photgrammetry coords for digital ortho)
123450powl_07.kmz (photogrammetry ortho wetland for google earth)
123450poniroc_08.tif (photogrammetry ortho niroc file plus yr)
123450pofas_96.tif (photogrammetry ortho fsa file plus yr)
123450powl_07.tif (photogrammetry ortho wetland file plus yr)

We really need to add the year to the file.
We have an original ortho and sometimes they want the latest images that are available.
Example:
NH-275-6(140), N-57 - WISNER, C.N. 31938 has 1996 and 2004 flights
319380po_96.tif
319380po_04.tif

The warped 9x9 photos shall be named according to their flight and frame numbers.
Example: 9 5 0 1 0 4. tif (Flight number = 9501 and Frame number = 04)

8. IPLOT ORGANIZER FILE NAMES

Full Size = 123450full.ips
Half Size = 123450_traf_half.ips
row
mr
rdwy
brg
pse

IPLOT and Sheet Models – Roadway Design workflow and Iplot configuration, does not support the use of sheet models.
Falcon can only search for file names, not for model names.

STANDARD TEXT SIZES

Plot Scale 100:1

PRELIMINARY SURVEY

	CASE	TX	WEIGHT	FONT
Station & Offset Text	N/A	10	1	5
Topog. & Driveway Notations	UPPER	10	1	5
Section-Township-Range Example: SEC. 35-T31N-R1E	UPPER	12	1	5
Hwy. No., Co. Rd. & Street Names	UPPER	12	2	5
Notes for Pipes & Structures	UPPER	10	1	5
Streams, Rivers, Railroads	UPPER	12	1	5 *
County Names	UPPER	14	2	5
City Names	UPPER	18	2	9
Contours	N/A	10	1	5
Section Line	UPPER	12	1	5

DESIGN

HORIZONTAL ALIGNMENT

Stationing Text	N/A	14	2	5
P.C. or P.T. on Alignment	UPPER	12	1	5
Equations & P.I. Data	UPPER	12	1	5

VERTICAL ALIGNMENT

Reference Line	N/A	14	2	5
Alignment Annotation	N/A	14	2	5
V.P.I. Data	U/L	14	2	5
Profile Elevations – Existing	N/A	12	1	5
Profile Elevations – Design	N/A	14	2	5
Construction Notes	U/L	14	2	5 *
Contours	N/A	12	2	5
Tabular Note Information (Prelim. info. UPPER case. Design info. U/L case)		12	2	5

* 15 degree slant.

Note: Line spacing should be .75 of TX

STANDARD TEXT SIZES

Plot Scale 50:1

PRELIMINARY SURVEY

	CASE	TX	WEIGHT	FONT
Station & Offset Text	N/A	5	1	5
Topog. & Driveway Notations	UPPER	5	1	5
Section-Township-Range Example: SEC. 35-T31N-R1E	UPPER	6	1	5
Hwy. No., Co. Rd. & Street Names	UPPER	6	2	5
Notes for Pipes & Structures	UPPER	5	1	5
Streams, Rivers, Railroads	UPPER	6	1	5 *
County Names	UPPER	7	2	5
City Names	UPPER	9	2	9
Contours	N/A	5	1	5
Section Line	UPPER	6	1	5

DESIGN

HORIZONTAL ALIGNMENT

Stationing Text	N/A	7	2	5
P.C. or P.T. on Alignment	UPPER	6	1	5
Equations & P.I. Data	UPPER	6	1	5

VERTICAL ALIGNMENT

Reference Line	N/A	7	2	5
Alignment Annotation	N/A	7	2	5
V.P.I. Data	U/L	7	2	5
Profile Elevations – Existing	N/A	6	1	5
Profile Elevations – Design	N/A	7	2	5
Construction Notes	U/L	7	2	5 *
Contours	N/A	6	2	5
Tabular Note Information (Prelim. info. UPPER case. Design info. U/L case)		6	2	5

* 15 degree slant.

Note: Line spacing should be .75 of TX

STANDARD TEXT SIZES

Plot Scale 20:1

PRELIMINARY SURVEY

	CASE	TX	WEIGHT	FONT
Station & Offset Text	N/A	2	1	5
Topog. & Driveway Notations	UPPER	2	1	5
Section-Township-Range Example: SEC. 35-T31N-R1E	UPPER	2.4	1	5
Hwy. No., Co. Rd. & Street Names	UPPER	2.4	2	5
Notes for Pipes & Structures	UPPER	2	1	5
Streams, Rivers, Railroads	UPPER	2.4	1	5 *
County Names	UPPER	2.8	2	5
City Names	UPPER	3.6	2	9
Contours	N/A	2	1	5
Section Line	UPPER	2.4	1	5

DESIGN

HORIZONTAL ALIGNMENT

Stationing Text	N/A	2.8	2	5
P.C. or P.T. on Alignment	UPPER	2.4	1	5
Equations & P.I. Data	UPPER	2.4	1	5

VERTICAL ALIGNMENT

Reference Line	N/A	2.8	2	5
Alignment Annotation	N/A	2.8	2	5
V.P.I. Data	U/L	2.8	2	5
Profile Elevations – Existing	N/A	2.4	1	5
Profile Elevations – Design	N/A	2.8	2	5
Construction Notes	U/L	2.8	2	5 *
Contours	N/A	2.4	2	5
Tabular Note Information (Prelim. info. UPPER case. Design info. U/L case)		2.4	2	5

* 15 degree slant. Note: Line spacing should be .75 of TX